

Appl. No. 09/927,125
Amdt. dated Apr. 10, 2006
In Reply to Office Action of Dec. 8, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) A method for allocating a plurality of transmission slots to a first wireless device, wherein the plurality of transmission slots includes a plurality of allocated transmission slots and a plurality of unallocated transmission slots, the method comprising:
 - establishing a first polling rate for the first wireless device, wherein the first polling rate allocates at least a first of the plurality of allocated transmission slots to the first wireless device;
 - polling the first wireless device according to the established first polling rate;
 - recording upload activity by the first wireless device in response to the polling; and
 - allocating a first of the plurality of unallocated transmission slots to the first wireless device based upon the recorded upload activity.
2. (Original) The method of claim 1, further comprising:
 - determining a first priority for the first wireless device;
 - wherein the first priority is based upon the recorded upload activity.
3. (Original) The method of claim 1, further comprising:
 - establishing a second polling rate for a second wireless device, wherein the second polling rate allocates at least a second of the allocated transmission slots to the second wireless device;
 - polling the second wireless device according to the second polling rate;
 - recording the upload activity by the second wireless device in response to the polling;
 - determining a priority for the second wireless device, wherein the priority for the second wireless device is based upon the recorded upload activity for the second wireless device; and
 - determining that the priority for the first wireless device is higher than the priority for the second wireless device.

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4. (Previously Presented) The method of claim 1, wherein the recording of the upload activity comprises:

recording an amount of data uploaded from the first wireless device.

5. (Previously Presented) The method of claim 1, wherein the recording of the upload activity comprises:

recording an indicator that more data needs to be uploaded from the first wireless device.

6. (Original) A method for allocating one of a plurality of transmission slots, wherein the plurality of transmission slots includes a plurality of allocated transmission slots and a plurality of unallocated transmission slots, the method comprising:

determining a first priority factor for a first wireless device, the first priority factor based upon an amount of data uploaded by the first wireless device to an access point during a first of the plurality of allocated transmission slots;

determining a second priority factor for a second wireless device, the second priority factor based upon an amount of data uploaded by the second wireless device to the access point during a second of the plurality of allocated transmission slots;

comparing the first priority factor and the second priority factor;

identifying the first wireless device as a priority wireless device based upon the comparison; and

allocating a first of the plurality of unallocated transmission slots to the priority wireless device.

7. (Original) The method of claim 6, further comprising:

receiving upload data from the priority wireless device in the first of the plurality of unallocated transmission slots.

8. (Original) The method of claim 7, the method further comprising:

recalculating the first priority factor, the recalculated first priority factor based upon upload activity in the first of the plurality of unallocated transmission slots.

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9. (Original) The method of claim 8, further comprising:
determining that the second priority factor is of a higher priority than the recalculated first priority factor; and

allocating a second of the plurality of unallocated transmission slots to the second wireless device responsive to determining that the second priority factor is of a higher priority than the recalculated first priority factor.

10. (Previously Presented) A system for allocating a plurality of transmission slots to a first wireless device, wherein the plurality of transmission slots includes a plurality of allocated transmission slots and a plurality of unallocated transmission slots, the system comprising:

a processor;

a storage device; and

a plurality of instructions stored within the storage device, the plurality of instructions configured to cause the processor to:

establish a first polling rate for the first wireless device, wherein the first polling rate allocates at least a first of the plurality of allocated transmission slots to the wireless device;

poll the first wireless device according to the first polling rate;

record upload activity by the first wireless device in response to the polling; and

allocate a first of the plurality of unallocated transmission slots to the first wireless device based upon the recorded upload activity.

11. (Original) The system of claim 10, wherein the plurality of instructions are further configured to cause the processor to:

determine a priority for the first wireless device;

wherein the priority is based upon the recorded upload activity.

12. (Original) The system of claim 10 wherein the plurality of instructions are further configured to cause the processor to:

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establish a second polling rate for a second wireless device, wherein the second polling rate allocates at least a second of the allocated transmission slots to the second wireless device;
poll the second wireless device according to the second polling rate;
record the upload activity by the second wireless device in response to the polling;
determine a priority for the second wireless device, wherein the priority for the second wireless device is based upon the recorded upload activity for the second wireless device; and
determine that the priority for the first wireless device is higher than the priority for the second wireless device.

13. (Original) A system for allocating one of a plurality of transmission slots, wherein the plurality of transmission slots includes a plurality of allocated transmission slots and a plurality of unallocated transmission slots, the system comprising:

means for determining a first priority factor for a first wireless device, the first priority factor based upon an amount of data uploaded by the first wireless device to an access point during a first of the plurality of allocated transmission slots;

means for determining a second priority factor for a second wireless device, the second priority factor based upon an amount of data uploaded by the second wireless device to an access point during a second of the plurality of allocated transmission slots;

means for identifying as a priority wireless device one of the first wireless device and the second wireless device based upon comparison of the first priority factor and the second priority factor; and

means for allocating a first of the plurality of unallocated transmission slots to the priority wireless device.

14. (Original) The system of claim 13, further comprising:

means for receiving upload data from the priority wireless device in the first of the plurality of unallocated transmission slots.

15. (Original) The system of claim 14, wherein the priority wireless device is the first wireless device, the system further comprising:

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means for recalculating the first priority factor, the recalculated first priority factor based upon upload activity in the first of the plurality of unallocated transmission slots.

16. (Currently Amended) ~~A system for allocating one~~ An access point that allocates one or more transmission slots of a plurality of transmission slots and polls a wireless device, the system access point comprising:

~~an access point;~~

~~a prioritizer connected to the access point; and~~

~~a priority storage device connected to the prioritizer.~~

wherein the prioritizer changes a priority of the wireless device based on a measure of upload activity from the wireless device.

17. (Original) The system of claim 16, further comprising:

a content provider in communication with the access point.

18. (Original) The system of claim 16, further comprising:

a wireless device in communication with the access point.

19. (Original) A method for operating a wireless device, the method comprising:

receiving a first polling signal from an access point;

responding to the first polling signal during a first allocated transmission slot by uploading a first amount of data;

receiving a second polling signal from the access point, wherein the second polling signal corresponds to the first amount of data uploaded;

uploading a second amount of data to the access point responsive to the second polling signal from the access point.

20. (Original) The method of claim 19, wherein the first polling signal and the second polling signal are associated with a single polling cycle.

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21. (Currently Amended) A method for operating a wireless device, the method comprising:

receiving a first polling signal from an access point;

responding to the first polling signal during a first allocated transmission slot by uploading a first set of data and a ~~an additional-upload indicator~~ that indicates that a communication link should be lowered in priority;

receiving a second polling signal from the access point, wherein the second polling signal is responsive to the ~~additional data-upload indicator;~~

uploading a second set of data to the access point responsive to the second polling signal from the access point.

22. (Previously Presented) The method of claim 21, wherein the first polling signal and the second polling signal are associated with a single polling cycle.